INTERNATIONAL SEARCH REPORT

International application No. PCT/KR2003/002756

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 B32B 9/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B32B 1/00 ~ B32B 35/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean patents and applications for inventions since 1975

Korean utility models and applications for utility models since 1975

Electronic data base consulted during the intertnational search (name of data base and, where practicable, search terms used) IBM, PAJ, USPTO, EPO, Korean patent search system

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,581,272 (Robert R. Walters et al) 8 Apr 1986 see the abstract and Fig 1 - Fig 3.	1 - 16
A	US 5,614,285 (Rainer F. Gardill) 25 Mar 1997 see the abstract.	1 - 16
A	KR 10-2001-68161 A (Jung, Rae Ik et al) 13 Jul 2001 see the abstract and Fig 1.	1 - 16
A	KR 20-177877 Y1 (Cho, Joon Sik) 15 Apr 2000 see the whole document.	1 - 16

	Further documents are listed in the continuation of Box C.
	rumer documents are fisted in the continuation of box C.

X See patent family annex.

- Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- 'E" earlier application or patent but published on or after the international filing date
- L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

30 MARCH 2004 (30.03.2004)

Date of mailing of the international search report

31 MARCH 2004 (31.03.2004)

Name and mailing address of the ISA/KR



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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/KR2003/002756

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4,581,272	08.04.1986	none	
US 5,614,285	25.03.1997	WO 96/16804 A1 CA 2179820	06.06.1996 06.06.1996
KR 10-2001-68161	A 13.07.2001	none	
KR 20-177877 Y1	15.04.2000	none	